AMENDMENTS TO THE CLAIMS

This **Listing of Claims** replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (canceled)

2. (currently amended) The base station of claim **[[1]] 5**, wherein the at least two chip rates are 3.84 Mchips/second and 3.84 x (n/p) Mchips/second~~, where n/p is selected from 1/2, 2/5, 1/3, 1/4, and 1/5.~~

3-4. (canceled)

5. (currently amended) ~~The base station of claim 3, wherein~~ **A base station for providing flexible data rate transmission in a telecommunications system comprising:**

an interface operable to receive an incoming data stream;

a signal processor coupled to the interface, the signal processor ~~is further~~ operable to:

receive the incoming data stream from the interface;

select an operating downlink chip rate from at least two chip rates;

select a spreading factor;

spread the incoming data stream into a spread data stream with a channelization code;

segment the incoming data stream into one or more frames, each frame comprising one or more slots;

select the operating downlink chip rate from the at least two chip rates, wherein the first of the two chip rates is equal to a fraction, n/p, of the second of the chip rates, where n/p is selected from 1/2, 2/5, 1/3, 1/4, and 1/5;

set the number of slots within the frame to 15, if n/p is equal to 1/2 or 1/4;

set the number of slots within the frame to 10, if n/p is equal to 1/3; and

set the number of slots to 12, if n/p is equal to 1/5 or 2/5**; and**

a transmitter coupled to the signal processor, the transmitter operable to receive the spread data stream from the signal processor and transmit the spread data stream over an air interface.

6. (original) The base station of claim 5, wherein the signal processor is further operable to: select the spreading factor based on a quality of service, q, and the operating chip rate.

7. (currently amended) ~~**The base station of claim 1,**~~ **A base station for providing flexible data rate transmission in a telecommunications system comprising:**

an interface operable to receive an incoming data stream;

a signal processor coupled to the interface, the signal processor operable to:

receive the incoming data stream from the interface;

select an operating downlink chip rate from at least two chip rates;

select a spreading factor; and

spread the incoming data stream into a spread data stream with a channelization code; and

a transmitter coupled to the signal processor, the transmitter operable to receive the spread data stream from the signal processor and transmit the spread data stream over an air interface;

~~wherein~~ the signal processor **~~is~~ being** further operable to:

where the first of the two chip rates is equal to a fraction, n/p, of the second of the chip rates, and where i=1 to 2, n=1 to i, and q=0 to (7-i+n-1), select the spreading factor, SF^R, as

$$SF^R = n \times \frac{512}{2^{q+i}}$$

.

8. (original) The base station of claim 7, wherein the signal processor is further operable to:

select a number of slots, N_S^R, as:

$$\text{if } p = 2^i, N_S^R = N_S,$$

$$\text{if } p = 2^i + 1, N_S^R = N_S \times \frac{2^i}{p}$$

.

9. (currently amended) **~~The base station of claim 4,~~ A base station for providing flexible data rate transmission in a telecommunications system comprising:**

an interface operable to receive an incoming data stream;

a signal processor coupled to the interface, ~~wherein~~ the signal processor **~~is further~~** operable to:

receive the incoming data stream from the interface;

select an operating downlink chip rate from at least two chip rates;

spread the incoming data stream into a spread data stream with a channelization code;

segment the incoming data stream into one or more frames, each frame comprising one or more slots;

select the operating downlink chip rate from the at least two chip rates, wherein the first of the two chip rates is equal to a fraction, n/p, of the second of the chip rates, where n/p is selected from 1/2, 2/5, 1/3, 1/4, and 1/5; and

select **the a** spreading factor, SF^R, as:

$$\text{if } n/p = \frac{1}{2} \text{ or } \frac{1}{4}, \; SF^R = \frac{512}{2^{q+1}},$$

$$\text{if } n/p = \frac{1}{3}, \frac{1}{5} \text{ or } \frac{2}{5}, \; SF^R = n \times \frac{512}{2^{q+2}};$$

and;

a transmitter coupled to the signal processor, the transmitter operable to receive the spread data stream from the signal processor and transmit the spread data stream over an air interface.

10. (currently amended) The base station of claim **5 [[1]]**, wherein the signal processor is further operable to generate a synchronization signal at the selected operating downlink chip rate, and the transmitter is further operable to transmit the synchronization signal.

11. (currently amended) The base station of claim **5 [[1]]**, further comprising: a receiver coupled to the signal processor, the receiver operable to receive a second spread data stream from the air interface which has been transmitted at an operating uplink chip rate selected from one of the at least two chip rates**, wherein n/p is selected from 1/2, 2/5, 1/3, 1/4, and 1/5**.

12-14. (canceled)

15. (currently amended) **The method of claim 14, further comprising: A method of providing flexible data rate transmission in a telecommunication system, comprising:**

receiving an incoming data stream;

selecting an operating chip rate from at least two chip rates;

selecting a spreading factor;

spreading the incoming data stream into a spread data stream with a channelization code;

segmenting the incoming data stream into one or more frames, each frame comprising one or more slots;

selecting an operating chip rate further comprising: selecting the operating downlink chip rate from at least two chip rates, wherein the first of the chip rates is equal to a fraction, n/p, of the second of the chip rates, where n/p is selected from 1/2, 2/5, 1/3, 1/4, and 1/5;

setting the number of slots within the frame to 15, if n/p is equal to 1/2 or 1/4;

setting the number of slots within the frame to 10, if n/p is equal to 1/3; and

setting the number of slots to 12, if n/p is equal to 1/5 or 2/5.

16. (original) The method of claim 15, wherein selecting the spreading factor further comprises: selecting the spreading factor based on a quality of service, q, and the operating chip rate.

17. (currently amended) ~~The method of claim 12,~~ **A method of providing flexible data rate transmission in a telecommunication system, comprising:**

receiving an incoming data stream;

selecting an operating chip rate from at least two chip rates;

selecting a spreading factor; and

spreading the incoming data stream into a spread data stream with a channelization code;

~~wherein~~ selecting the spreading factor further **comprising** ~~comprises~~:

where the first of the two chip rates is equal to **a** ~~the~~ fraction, n/p, of the second of the chip rates, and where ~~i~~=1 to 2, n=1 to i, and q=0 to (7-i+n-1), selecting the spreading factor, SF^R, as

$$SF^R = n \times \frac{512}{2^{q+i}} .$$

18. (original) The method of 17, further comprising selecting a number of slots, N_S^R, as:

if $p=2^i$, $N_S^R=N_S$,

if $p = 2^i + 1$, $N_S^R = N_S \times \frac{2^i}{p}$.

19. (currently amended) ~~The method of claim 14,~~ **A method of providing flexible data rate transmission in a telecommunication system, comprising:**

receiving an incoming data stream;

selecting an operating chip rate from at least two chip rates;

selecting a spreading factor;

spreading the incoming data stream into a spread data stream with a channelization code;

segmenting the incoming data stream into one or more frames, each frame comprising one or more slots;

selecting the operating chip rate further comprising: selecting the operating downlink chip rate from at least two chip rates, wherein the first of the chip rates is equal to a fraction, n/p, of the second of the chip rates, where n/p is selected from 1/2, 2/5, 1/3, 1/4, and 1/5; and

~~wherein~~ selecting the spreading factor further **comprising** ~~comprises~~: setting the spreading factor, SF^R, to:

$$\text{if } n/p = \frac{1}{2} \text{ or } \frac{1}{4}, SF^R = \frac{512}{2^{q+i}}, \text{ or}$$

$$\text{if } n/p = \frac{1}{3}, \frac{1}{5} \text{ or } \frac{2}{5}, SF^R = n \times \frac{512}{2^{q+2}} .$$

20. (currently amended) The method of claim **15** **[[12]]**, further comprising: generating a synchronization signal at the selected operating downlink chip rate and transmitting the synchronization signal.

21. (currently amended) The method ~~**of spreading an incoming data stream**~~ of claim **15** **[[12]]**, further comprising: receiving a second spread data stream from an air interface which has been transmitted at an operating uplink chip rate selected from one of the at least two chip rates~~**, wherein n/p is selected from 1/2, 2/5, 1/3, 1/4, and 1/5**~~.

22. (canceled)

23. (currently amended) The user equipment of claim **26** **[[22]]**, wherein the at least two chip rates are 3.84 Mchips/second and 3.84 x (n/p) Mchips/second~~**, where n/p is selected from 1/2, 2/5, 1/3, 1/4, and 1/5**~~.

24-25. (canceled)

26. (currently amended) ~~**The user equipment of claim 25,**~~ **A user equipment for providing flexible data rate transmission in a telecommunications system comprising:**

an interface operable to receive an incoming data stream;

a signal processor coupled to the interface, the signal processor operable to:

receive the incoming data stream from the interface;

select an operating uplink chip rate from at least two chip rates;

select a spreading factor;

spread the incoming data stream into a spread data stream with a channelization code;

segment the incoming data stream into one or more frames, each frame comprising one or more slots;

select an operating uplink chip rate from at least two chip rates, wherein the first of the chip rates is equal to a fraction, n/p, of the second of the chip rates, where n/p is selected from 1/2, 2/5, 1/3, 1/4, and 1/5;

~~**wherein the signal processor is further operable to:**~~

set the number of slots within the frame to 15, if n/p is equal to 1/2 or 1/4;

set the number of slots within the frame to 10, if n/p is equal to 1/3; and

set the number of slots to 12, if n/p is equal to 1/5 or 2/5**; and**

a transmitter coupled to the signal processor, the transmitter operable to receive the spread data stream from the signal processor and transmit the spread data stream over an air interface; and

27. (original) The user equipment of claim 26, wherein the controller is further operable to:

select the spreading factor based on a quality of service, q, and the operating chip rate.

28. (currently amended) ~~The user equipment of claim 22,~~ **A user equipment for providing flexible data rate transmission in a telecommunications system comprising:**

an interface operable to receive an incoming data stream;

a signal processor coupled to the interface, the signal processor operable to:

receive the incoming data stream from the interface;

select an operating uplink chip rate from at least two chip rates;

select a spreading factor; and

spread the incoming data stream into a spread data stream with a channelization code; and

a transmitter coupled to the signal processor, the transmitter operable to receive the spread data stream from the signal processor and transmit the spread data stream over an air interface;

~~wherein~~ the signal processor **being ~~is~~** further operable to:

where the first of the two chip rates is equal to a fraction, n/p, of the second of the chip rates, and where i=1 to 2, n=1 to i, and q=0 to (6-i+n-1), select the spreading factor, SF^R, as

$$SF^R = n \times \frac{256}{2^{q+i}} .$$

29. (currently amended) The user equipment of claim **26 [[22]]**, further comprising: a receiver coupled to the signal processor, the receiver operable to receive a second spread data stream from the air interface which has been transmitted at an operating uplink chip rate selected from one of the at least two chip rates**~~, wherein n/p is selected from 1/2, 2/5, 1/3, 1/4, and 1/5~~**.

30-32. (canceled)

33. (currently amended) ~~The computer-readable medium of claim 32 having further executable instructions for:~~ **A computer-readable medium having executable instructions for performing steps that provide flexible data rate transmission in a telecommunication system, the steps comprising:**

receiving an incoming data stream;

selecting an operating chip rate from at least two chip rates;

selecting a spreading factor;

spreading the incoming data stream into a spread data stream with a channelization code;

segmenting the incoming data stream into one or more frames, each frame comprising one or more slots;

selecting the operating downlink chip rate from at least two chip rates, wherein the first of the chip rates is equal to a fraction, n/p, of the second of the chip rates, where n/p is selected from 1/2, 2/5, 1/3, 1/4, and 1/5;

setting the number of slots within the frame to 15, if n/p is equal to 1/2 or 1/4;

setting the number of slots within the frame to 10, if n/p is equal to 1/3; and

setting the number of slots to 12, if n/p is equal to 1/5 or 2/5.

34. (original) The computer-readable medium of claim 33 having further executable instructions for: selecting the spreading factor based on a quality of service, q, and the operating chip rate.

35. (currently amended) ~~The computer-readable medium of claim 30 having further executable instructions for:~~ **A computer-readable medium having executable instructions for performing steps that provide flexible data rate transmission in a telecommunication system, the steps comprising:**

receiving an incoming data stream;

selecting an operating chip rate from at least two chip rates;

selecting a spreading factor;

spreading the incoming data stream into a spread data stream with a channelization code; and

where the first of the two chip rates is equal to a fraction, n/p, of the second of the chip rates, and where i=1 to 2, n=1 to i, and q=0 to (7-i+n-1), selecting the spreading factor, SF^R, as

$$SF^R = n \times \frac{512}{2^{q+i}} .$$

36 (original) The computer-readable medium of claim 35 having further executable instructions for: selecting a number of slots, N_S^R, as:

if $p=2^i$, $N_S^R=N_S$,

$$\text{if } p = 2^i + 1, N_S^R = N_S \times \frac{2^i}{p} .$$

37. (currently amended). ~~The computer-readable medium of claim 32 having further executable instructions for:~~ **A computer-readable medium having executable instructions for performing steps that provide flexible data rate transmission in a telecommunication system, the steps comprising:**

receiving an incoming data stream;

selecting an operating chip rate from at least two chip rates;

selecting a spreading factor;

spreading the incoming data stream into a spread data stream with a channelization code;

segmenting the incoming data stream into one or more frames, each frame comprising one or more slots;

selecting the operating downlink chip rate from at least two chip rates, wherein the first of the chip rates is equal to a fraction, n/p, of the second of the chip rates, where n/p is selected from 1/2, 2/5, 1/3, 1/4, and 1/5; and

setting the spreading factor, SF^R, to:

$$\text{if } n/p = \frac{1}{2} \text{ or } \frac{1}{4}, \; SF^R = \frac{512}{2^{q+1}}, \text{ or}$$

$$\text{if } n/p = \frac{1}{3}, \frac{1}{5} \text{ or } \frac{2}{5}, \; SF^R = n \times \frac{512}{2^{q+2}}.$$

38. (currently amended) The computer-readable medium of claim **33** **[[30]]** having further executable instructions for: transmitting a synchronization channel at the selected downlink chip rate.

39. (currently amended) The computer-readable medium of claim **33** **[[30]]** having further executable instructions for: receiving a second spread data stream from an air interface which has been transmitted at an operating uplink chip rate selected from one of the at least two chip rates~~, wherein n/p is selected from 1/2, 2/5, 1/3, 1/4, and 1/5~~.

40. (canceled)

41. (currently amended). The signal processor station of claim **44** **[[40]]**, wherein the at least two chip rates are 3.84 Mchips/second and 3.84.times.(n/p) Mchips/second~~, where n/p is selected from 1/2, 2/5, 1/3, 1/4, and 1/5.~~

42-43. (canceled)

44. (currently amended) ~~The signal processor of claim 43, wherein the processor is further operable to:~~ **A signal processor for providing flexible data rate transmission in a telecommunications system comprising:**

an input operable to receive an incoming data stream;

a processor coupled to the input, the processor operable to:

receive the incoming data stream from the input;

select an operating downlink chip rate from at least two chip rates;

select a spreading factor;

spread the incoming data stream into a spread data stream with a channelization code;

segment the incoming data stream into one or more frames, each frame comprising one or more slots;

select the operating downlink chip rate from the at least two chip rates, wherein the first of the two chip rates is equal to a fraction, n/p, of the second of the chip rates, where n/p is selected from 1/2, 2/5, 1/3, 1/4, and 1/5;

set the number of slots within the frame to 15, if n/p is equal to 1/2 or 1/4;

set the number of slots within the frame to 10, if n/p is equal to 1/3; and

set the number of slots to 12, if n/p is equal to 1/5 or 2/5**; and**

an output coupled to the processor, the output operable to receive the spread data stream from the processor.

45. (original) The signal processor of claim 44, wherein the processor is further operable to:

select the spreading factor based on a quality of service, q, and the operating chip rate.

46. (currently amended). ~~**The signal processor of claim 40, wherein the processor is further operable to:**~~ **A signal processor for providing flexible data rate transmission in a telecommunications system comprising:**

an input operable to receive an incoming data stream;

a processor coupled to the input, the processor operable to:

receive the incoming data stream from the input;

select an operating downlink chip rate from at least two chip rates;

select a spreading factor;

spread the incoming data stream into a spread data stream with a channelization code; and

where the first of the two chip rates is equal to a fraction, n/p, of the second of the chip rates, and where i=1 to 2, n=1 to i, and q=0 to (7-i+n-1), select the spreading factor, SF_R, as

$$SF^R = n \times \frac{512}{2^{q+i}} \text{ ; and}$$

an output coupled to the processor, the output operable to receive the spread data stream from the processor.

47. (original) The signal processor of claim 46, wherein the processor is further operable to:

select a number of slots, N_S^R, as:

if $p=2^i$, $N_S^R = N_S$,

$$\text{if } p = 2^i + 1, N_S^R = N_S \times \frac{2^i}{p}.$$

48. (currently amended) ~~The signal processor of claim 43, wherein the processor is further operable to:~~ **A signal processor for providing flexible data rate transmission in a telecommunications system comprising:**

an input operable to receive an incoming data stream;

a processor coupled to the input, the processor operable to:

receive the incoming data stream from the input;

select an operating downlink chip rate from at least two chip rates;

select a spreading factor;

spread the incoming data stream into a spread data stream with a channelization code;

segment the incoming data stream into one or more frames, each frame comprising one or more slots;

select the operating downlink chip rate from the at least two chip rates, wherein the first of the two chip rates is equal to a fraction, n/p, of the second of the chip rates, where n/p is selected from 1/2, 2/5, 1/3, 1/4, and 1/5; and

select the spreading factor, SF^R, as:

$$\text{if } n/p = \frac{1}{2} \text{ or } \frac{1}{4}, SF^R = \frac{512}{2^{q+i}};$$

$$\text{if } n/p = \frac{1}{3}, \frac{1}{5} \text{ or } \frac{2}{5}, SF^R = n \times \frac{512}{2^{q+2}} \text{ ; and}$$

an output coupled to the processor, the output operable to receive the spread data stream from the processor.

49. (currently amended) The signal processor of claim **44** **[[40]]**, wherein the processor is further operable to generate a synchronization signal at the selected operating downlink chip rate.

50. (currently amended) ~~**The signal processor of claim 40, wherein the processor is further operable to:**~~ **A signal processor for providing flexible data rate transmission in a telecommunications system comprising:**

an input operable to receive an incoming data stream;

a processor coupled to the input, the processor operable to:

receive the incoming data stream from the input;

select an operating downlink chip rate from at least two chip rates;

select a spreading factor;

spread the incoming data stream into a spread data stream with a channelization code; and

where the first of the two chip rates is equal to a fraction, n/p, of the second of the chip rates, and where i=1 to 2, n=1 to i, and q=0 to (6-i+n-1), select the spreading factor, SF^R, as

$$SF^R = n \times \frac{256}{2^{q+1}} \text{; and}$$

an output coupled to the processor, the output operable to receive the spread data stream from the processor.

51. (original) The signal processor of claim 50, wherein the processor is further operable to:

select a number of slots, N_S^R, as:

if $p=2^i$, $N_S^R=N_S$,

$$\text{if } p = 2^i + 1, N_S^R = N_S \times \frac{2^i}{p}.$$

52. (currently amended) ~~**The signal processor of claim 43, wherein the processor is further operable to:**~~ **A signal processor for providing flexible data rate transmission in a telecommunications system comprising:**

an input operable to receive an incoming data stream;

a processor coupled to the input, the processor operable to:

receive the incoming data stream from the input;

select an operating downlink chip rate from at least two chip rates;

select a spreading factor;

spread the incoming data stream into a spread data stream with a channelization code;

segment the incoming data stream into one or more frames, each frame comprising one or more slots;

select the operating downlink chip rate from the at least two chip rates, wherein the first of the two chip rates is equal to a fraction, n/p, of the second of the chip rates, where n/p is selected from 1/2, 2/5, 1/3, 1/4, and 1/5; and

select the spreading factor, SF^R, as:

$$\text{if } n/p = \frac{1}{2} \text{ or } \frac{1}{4}, SF^R = \frac{256}{2^{q+i}},$$

$$\text{if } n/p = \frac{1}{3}, \frac{1}{5} \text{ or } \frac{2}{5}, SF^R = n \times \frac{256}{2^{q+2}} \text{ ; and}$$

an output coupled to the processor, the output operable to receive the spread data stream from the processor.